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A NEW SAWFLY (HYMENOPTERA: PERGIDAE) FEEDING ON GUAVA, *PSIDIUM GUAJAVA* L. (MYRTACEAE), IN COSTA RICA

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Abstract.—***Sutwanus guajavae*, n. sp.**, from Costa Rica is described and illustrated. Adults were reared from larvae feeding on *Psidium guajava* L. (Myrtaceae). A diagnosis is provided for distinguishing the new species from *S. nigriceps* (Cameron), the only other species in the genus.

Key Words: Symphyta, guava, Taiwanese guava

Specimens representing a new species of *Sutwanus* Smith reared from a cultivar of guava, *Psidium guajava* L. (Myrtaceae), known as Taiwanese guava in Costa Rica, were sent to me by Dr. Hugo Aguilar, Universidad de Costa Rica. They were reared from larvae attacking young leaves of a small tree. The new species, considered a potential pest of this important agricultural commodity in Costa Rica, is described to provide a name.

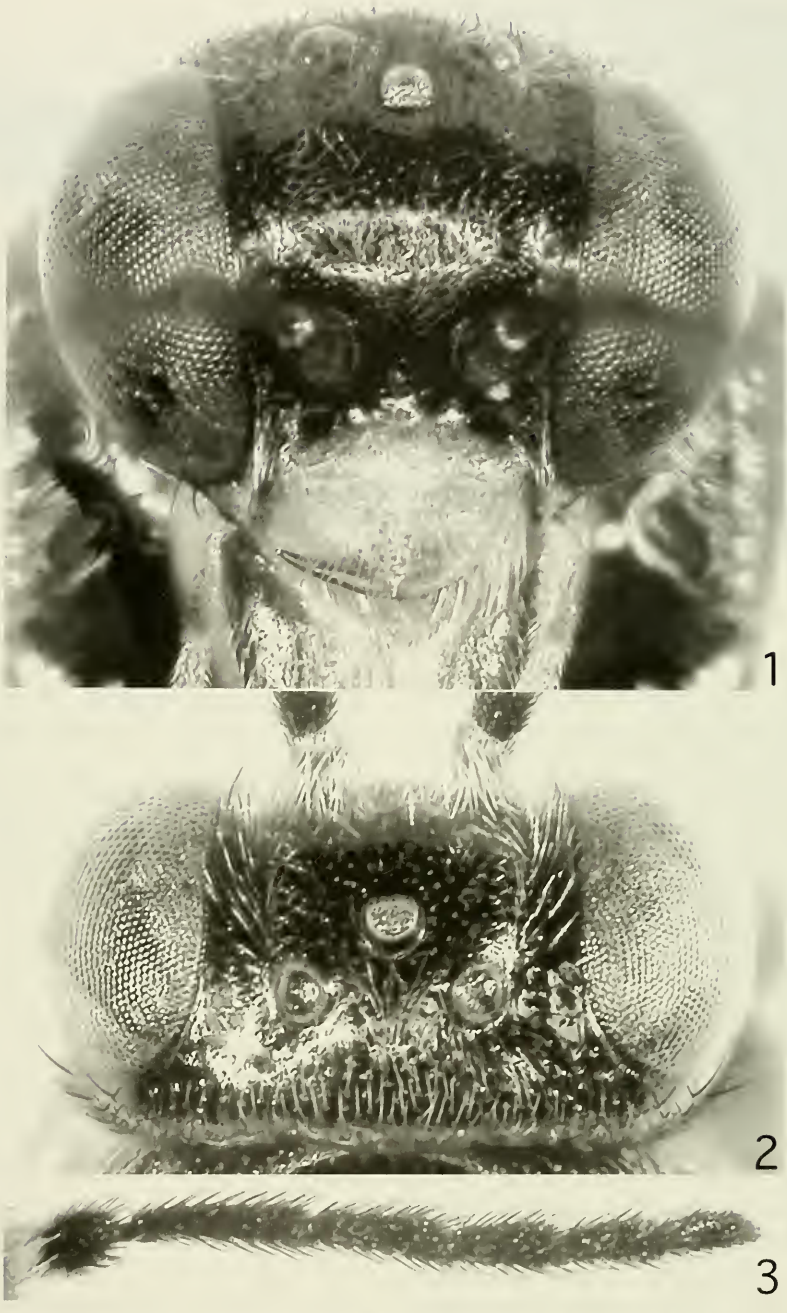
Sutwanus was described in the Acordulecerinae by Smith (1990). Although Smith (1990) examined a number of undescribed species, he included only *Sutwanus nigriceps* (Cameron 1883), known from Mexico to Costa Rica. The new species described below is structurally very similar to *S. nigriceps* but differs by its unusual color pattern and slight differences in the ovipositor and antennae. *Sutwanus*, *Acordulecerida* Rohwer, and *Busalus* Smith are distinguished from other Acordulecerinae by their 7-segmented antennae; other genera have 6, 8, or 9 antennal segments. *Sutwanus* is distinguished from *Acordulecerida* and *Busalus* by the third antennal segment longer than the fourth, the head in dorsal view strongly narrowing behind the eyes, the lower interocular distance shorter than the eye length, the linear malar space, and the forewing with three cubital cells. *Acordulecerida* occurs from Mexico to Argentina, and *Busalus* occurs only in southeastern Brazil. Food plants are not known for either genus.

Sutwanus guajavae Smith, new species

(Figs. 1–4)

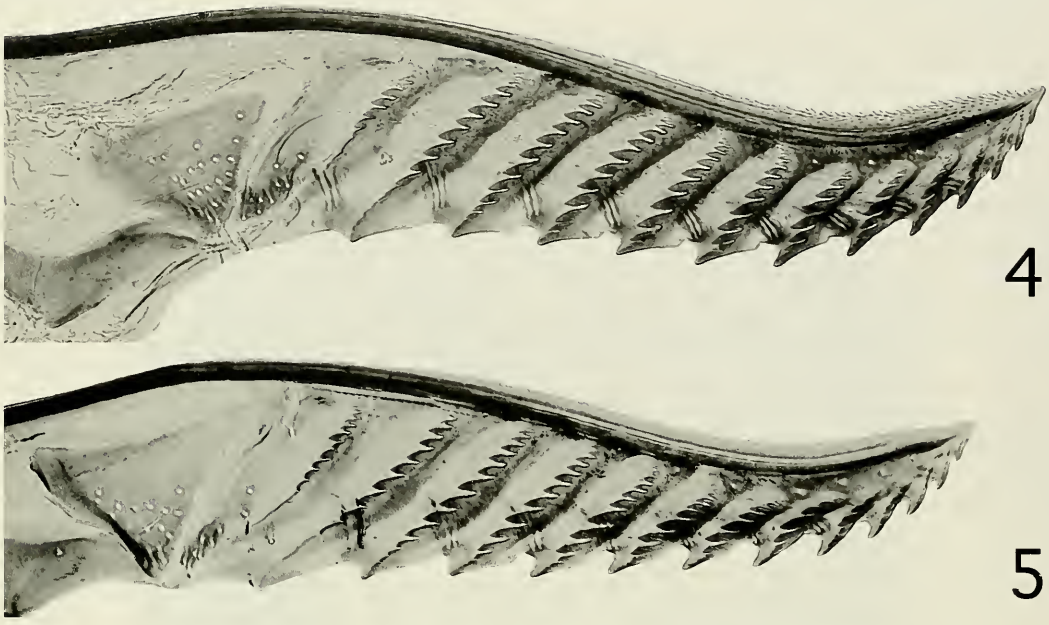
Female.—Length, 5.0 mm. Antenna and head black with clypeus, labrum, and base of mandible white, apex of mandible red brown. Thorax black. Legs black with inner surfaces and apices of coxae, trochanters, and under surface of femora white. Abdomen orange with basal plates, narrow anterior margin of second tergum, sheath, and cercus black. Wings uniformly, darkly infuscated; veins and stigma black.

Antenna 7-segmented (Fig. 3); length subequal to head width; third segment 1.3× length of fourth segment; fourth segment 1.4× length of fifth segment; segments 5–7 subequal to very slightly decreasing in



Figs. 1–3. *Sutwanus guajavae*. 1, Head, front view. 2, Head, dorsal view. 3, Antenna.

length; apical two antennal segments each about 2× longer than broad. Eyes large and slightly converging below (Fig. 1); lower interocular distance 0.7× eye length, upper interocular distance 0.9× eye length. Malar space linear. Head in dorsal view sharply narrowing behind eyes (Fig. 2). Distances between eye and lateral ocellus, between



Figs. 4–5. Female lancets. 4, *Sutwanus guajavae*. 5, *S. nigriceps* (specimen from Mexico).

lateral ocelli, and from lateral ocellus to hind margin of head as 1.0:1.5:1.3; postocellar area 2.2× broader than long. Hind basitarsus 1.4× longer than length of remaining tarsal segments combined. Length of inner hind tibial spur 0.4× length of hind basitarsus and 1.2× longer than apical width of hind tibia. Sheath with laterally projecting scopae. Forewing with 3 cubital cells. Lancet (Fig. 4) with 12 serrulae and 11 annuli bearing broad, blunt teeth; dorsal portion of basal annuli curved anteriorly; each serrula with numerous small posterior subbasal teeth.

Male.—Length, 4.8 mm. Similar to female except abdomen black, and femora and fore tibia white except blackish on dorsum of femora.

Types.—Holotype ♀, labeled "Costa Rica, San Jose, San Francisco Dos Rios, Urbanización La Pacifica, 1,100 m, 18/X/03, H. Aguilar," "Guayaba taiwanesa, plántulas conseguidas Jicaral, Peninsula Nicoya, Puntarenas 0–500 msnm, Eclosión adultos 28–31/X/03." Paratypes: 1 ♀, 2 ♂, same data as for holotype. Holotype and 2 ♂ paratypes deposited in Universidad de Costa Rica; 1 ♀ paratype in National Museum of Natural History, Smithsonian Institution, Washington, DC.

The larvae were affecting the leaves of commercial Taiwanese guava (*Psidium guajava*) in the central valley of Costa Rica. The trees originally were taken from Jicaral in the Peninsula of Nicoya, Puntarenas Province.

Etymology.—The specific epithet is from the food plant, *Psidium guajava*.

Discussion.— *Sutwanus nigriceps* was redescribed by Smith and Janzen (2003), who provided notes on biology based on specimens reared from larvae feeding on mature leaves of *Psidium guajava* in the Area de Conservación Guanacaste at the interface of dry forest with rainforest. Larvae of *S. guajavae* were feeding on young leaves, which may indicate a biological difference between the species.

Differences in coloration separate females of *S. nigriceps* and *S. guajavae*. The female of *S. nigiceps* is almost entirely orange to yellow orange with only the antenna, head, tegula, upper part of the mesopleuron, tarsi, outer surfaces of the tibiae,

and most of the dorsum of the abdomen black. *Sutwanus guajavae* is almost entirely black with a contrasting orange abdomen. The female lancets of the two species are very similar, but the basal annuli of *S. guajavae* curve anteriorly at their dorsal part (Fig. 4) whereas those of *S. nigriceps* are straighter (Fig. 5). The apical two antennal segments of *S. guajavae* are rather stout, about two times longer than broad (Fig. 3), whereas those of *S. nigriceps* are more slender, about three times longer than broad (Smith and Janzen 2003, fig. 11). The sheaths of both species are similar to the illustration of *S. nigriceps* by Smith (1990, fig. 415). The males of both species are similarly colored except the tibiae are almost entirely white in *S. nigriceps*. Males of many Acorduleceriinae are difficult to separate because of their small size and similar coloration, and the taxonomy of this group is based mostly on females. The male genitalia of *S. guajavae* appear indistinguishable from the genitalia of *S. nigriceps* as illustrated by Smith (1990, fig. 418).

I have seen a number of specimens of *S. nigriceps* from Mexico to Costa Rica, and there is very little color variation, except in the amount of black on the dorsum of the abdomen. Both species are very similar in all other structural features. The available material strongly suggests that the two are distinct species rather than extreme color variations of the same species. There is probably a complex of species in *Sutwanus* with similar lancets as figured.

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